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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,531	03/26/2004	Mitsuru Horinoe	119054	7531

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EXAMINER

GRAINGER, QUANA MASHELL

ART UNIT PAPER NUMBER

2852

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,531

Applicant(s)

HORINOE ET AL.

Examiner

Quana M. Grainger

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-20 is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-10 and 12-16 is/are rejected.
- 7) ☒ Claim(s) 5-7, 11 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 3-26-2004 and 9-23-2004 was considered by the examiner.

Drawings

3. The content of the drawings are approved by the examiner.

Title

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2852

6. Claims 1-4, 12-13, and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito et al (6,546,213). The developing device that is detachably attached to a main casing of an image forming apparatus by Ito et al. comprises a developing agent container that contains a developing agent; a developing agent carrier that carries the developing agent; a supply device that is disposed facing the developing agent carrier and supplies the developing agent stored in the developing agent container to the developing agent carrier, the developing agent carrier and the supply device disposed below the developing agent container when the developing device is mounted in the main casing of the image forming apparatus; and a first wall that is disposed between the developing agent container and the supply device and covers an upper portion of the supply device when the developing device is mounted in the main casing of the image forming apparatus. The first wall (the wall inside the container (W1) or the wall (W2) below the opening 24 on the right side of figure 2) is disposed so as to store the supply device within a plane of projection in a vertical direction of the first wall when the developing device is mounted in the main casing of the image forming apparatus. The first wall (W1) is disposed so as to produce a flow of the developing agent by moving the developing agent between the first wall and the supply device along with a movement of the supply device, when the developing device is mounted in the main casing of the image forming apparatus. The first wall (W2) is disposed near the supply device.

Ito et al. teaches a developing device that is detachably attached to a main casing of an image forming apparatus, comprising: a developing agent container that contains a developing agent; a developing agent carrier that carries the developing agent; a supply device that is disposed facing the developing agent carrier and supplies the developing agent stored in the

Art Unit: 2852

developing agent container to the developing agent carrier, the developing agent carrier and the supply device disposed below the developing agent container when the developing device is mounted in the main casing of the image forming apparatus; and a first means that prevents a weight of the developing agent contained in the developing agent container from directly acting on the supply device. The image forming apparatus comprising: a main frame; and a developing unit that is detachably attached to the main frame; the developing unit comprising: a developing agent container that contains a developing agent; a developing agent carrier that carries the developing agent; a supply device that is disposed facing the developing agent carrier and supplies the developing agent stored in the developing agent container to the developing agent carrier, the developing agent carrier and the supply device disposed below the developing agent container when the developing device is mounted in the main casing of the image forming apparatus; and a first wall disposed between the developing agent container and the supply device and covers an upper portion of the supply device when the developing device is mounted in the main casing of the image forming apparatus. The image forming apparatus comprising a plurality of developing agent containers, developing agent carriers, supply devices, and first walls in the same number as a plurality of colors for the developing agent (figure 1).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view of Yaguchi et al (2004/0053153). Ito does not teach the bulk density for the developing agent container.

Yaguchi teaches a developing device that is detachably attached to a main casing of an image forming apparatus, comprising: a developing agent container that contains a developing agent; a developing agent carrier that carries the developing agent; a supply device that is disposed facing the developing agent carrier and supplies the developing agent stored in the developing agent container to the developing agent carrier, the developing agent carrier and the supply device disposed below the developing agent container when the developing device is mounted in the main casing of the image forming apparatus; and wherein the developing agent has a packed bulk density of greater than or equal to 0.646 g/ml at an initial use [117]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Yaguchi et al. with the developing device of Ito et al. to obtain a toner that is environmentally safer (Yaguchi et al. [007]).

Claims 8 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view of Ishii et al. (6,594,462). Ito et al. does not teach the rotation direction for the developer roller and the agitating member.

Ishii et al. teaches a developing device further comprising an agitating member that is provided in the developing agent container and agitates the developing agent, and wherein the agitating member moves, at the closest position to the developing agent carrier, in the same direction as a flow of the developing agent produced near the developing agent carrier by the movement of the developing agent carrier (figure 2) which uses substantially spherical particles (column 8, lines 7-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of use the teaching of Ishii et al. with the developing device of Ito to reduce toner consumption (Ishii et al.; column 4, lines 58-62).

Allowable Subject Matter

10. Claims 5-7, 9, 11, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 18-20 are allowed.


Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quana M. Grainger whose telephone number is 571-272-2135. The examiner can normally be reached on 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Quana M Grainger
Primary Examiner
Art Unit 2852

QG